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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,701	07/24/2003	Colin Whitehurst	1487.0320001	9946

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EXAMINER
JOHNSON III, HENRY M

ART UNIT	PAPER NUMBER
3739	

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/625,701	WHITEHURST, COLIN	
	Examiner	Art Unit	
	Henry M. Johnson, III	3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9,10 and 62-66* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9,10 and 62-66* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *032906*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed October 6, 2006 have been fully considered but they are not persuasive. A skilled artesian working with semiconductor devices, regardless of the intended use or art area, would be concerned with the heat generated by the device. One of skill in the art would recognize the detrimental effects on the life expectancy of the device as well as the effect of heat on the spectral emission of a device such as an LED.

It is proper to take into consideration not only the teachings of the prior art, but also the level of ordinary skill in the art. In re Luck, 476 F.2d 650, 177 USPQ 523 (CCPA 1973). Specifically, those of ordinary skill in the art are presumed to have some knowledge of the art apart from what is expressly disclosed in the references. In re Jacoby, 309 F.2d 513, 135 USPQ 317 (CCPA 1962).

A skilled artesian would be motivated to cool an LED array using force air, liquid cooling, Peltier elements or any other known methodology.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 9, 62, 64-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,663,659 to McDaniel in view of U.S. Patent 6,290,382 to Bourn et al. McDaniel discloses a light therapy apparatus with light emitting diodes (LEDs) arranged in an array with wavelengths from 300 to 1600 nanometers. Three array panels may be hinged (Col. 16, line 61) together (Fig. 15). McDaniel discloses how the positioning of the LEDs and their various

divergent beams impacts the uniformity of the energy delivered (Col. 17, lines 14-21), thus teaching an arrangement for uniform intensity distribution (Fig. 18B). The intensity is disclosed as from 250 nanowatts to 1 watt per square centimeter (col. 8, lines 30-35). While McDaniel suggests cooling of the LEDs (Col. 18, lines 1-3), fans for cooling are not disclosed. Bourn et al. teach the use of fans and heatsinks for cooling an LED array. Bourn et al. teaches a plurality of individual LEDs wired in a parallel-series configuration, and cooling unit implemented as a heatsink, thermally coupled to the LEDs, with a fan blowing onto the heatsink (Col. 6, lines 43-48). It would have been obvious to one skilled in the art to use the cooling techniques as taught by Bourn et al. in the invention of McDaniel as McDaniel suggests such cooling motivating one skilled in the art to seek prior art cooling methodologies as the effect of heat on semiconductor devices is well known and cooling such devices is common and pervasive in the art.

Regarding claim 64, treatment of a specific area is related to intended use.

Regarding claim 65, the apparatus of McDaniel includes no additional optics between the arrays and the treatment area.

Claims 10 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,663,659 to McDaniel in view of U.S. Patent 6,290,382 to Bourn et al. as applied to claims 9 and 62 above, and further in view of U.S. Patent 6,450,941 to Larsen. McDaniel and Bourn et al. are discussed above, but do not teach four panels in a treatment configuration. Larsen teaches a device for hair treatment using multiple panels (LED arrays). Six panels are arranged around and above a head (Fig. 1c) for hair treatment. McDaniel teaches hair treatment (abstract) and therefore, it would have been obvious to one skilled in the art to include additional panels (hinged or otherwise), to provide full coverage of a head as taught by Larsen, to the invention of McDaniel in view of Bourn et al. to insure the irradiation treatment reached the full extent of the desired treatment area.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M. Johnson, III whose telephone number is (571) 272-4768. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Henry M. Johnson, III
Primary Examiner
Art Unit 3739